

**REMARKS**

**I. Status of Claims**

Claims 1-20 are pending. Applicant amended Claims 1, 19, and 20 to further define the superconducting cable as further comprising a support. This amendment is supported by the specification, for example, at Figure 1. Applicant further amended Claims 2-18 to correct certain informalities. Applicant submits that no new matter has been added by these amendments.

Applicant thanks the Examiner for indicating that Claims 14 and 15 would be allowable if rewritten in independent form including all of the limitations of the base claim.

**II. Rejection Under 35 U.S.C. § 102(b)**

The Examiner has rejected claims 1-5, 10-12, 14, 19, and 20 as anticipated by U.S. Patent No. 3, 562,401 ("Long") for the reasons disclosed at pages 2-3 of the Office Action. Applicant traverses this rejection for at least the reasons presented below.

A rejection under § 102 is proper only when the claimed subject matter is identically described or disclosed in the prior art. *In re Arkley*, 455 F.2d 586, 587 (C.C.P.A. 1972). "For anticipation under 35 U.S.C. § 102, the reference must teach every aspect of the claimed invention either explicitly or impliedly." M.P.E.P. § 706.02. Moreover, in order to anticipate the claimed invention, a reference must clearly and unequivocally disclose the claimed composition to one of ordinary skill in the art "without any need for picking, choosing and combining various disclosures."

*In re Arkley*, 455 F.2d at 587. Importantly, missing elements may not be supplied by the knowledge of one skilled in the art or the disclosure of another reference. See *Structural Rubber Prods. Co. v. Park Rubber Co.*, 223 U.S.P.Q. 1264, 1271 (Fed. Cir. 1984).

Applicant submits that Long fails to disclose, at a minimum, the claim limitations: "a support with an inner surface which defines a channel wherein a cryogenic fluid flows" and "at least a superconducting conductor positioned externally to said support." The Examiner has relied upon the disclosures of Figures 1 and 4 to teach the claimed invention. (Office Action at 2-3). Applicant submits that neither Figure 1 nor Figure 4 meets both limitations. In contrast, Long teaches having the conductor in direct contact with the cryogenic fluid; not separated by a support. (Long, col. 2, ll. 12-14).

Accordingly, Applicant requests that the Examiner withdraw the rejection of Claims 1-5, 10-12, 14, 19, and 20 under 35 U.S.C. § 102(b).

### III. Rejection Under 35 U.S.C. § 103(a)

The Examiner has rejected claims 6-9, 13, 17, and 18 as obvious over Long in view of U.S. Patent Nos. 3,631,519, 6,512,311, or 6,509,819 for the reasons disclosed at pages 3-5. Applicant respectfully traverses this rejection for at least the reasons presented below.

To establish a *prima facie* case of obviousness under 35 U.S.C. § 103, the Examiner bears the burden of establishing each of three requirements. First, the

references must teach or suggest each and every element recited in the claims.

See M.P.E.P. § 2143.03. Second, the Examiner must establish that some suggestion or motivation, either in the reference itself, or in the knowledge generally available to one of ordinary skill in the art, to combine the references to achieve the presently claimed invention. See M.P.E.P. § 2143.01. Third, the Examiner must establish a reasonable expectation of success for the proposed combination. See M.P.E.P. § 2143.02. Moreover, each of these requirements must “be found in the prior art, and not be based on applicant’s disclosure.” M.P.E.P. § 2143.

At a minimum, the Examiner cannot establish that references teach or suggest each and every element recited in the claims. See M.P.E.P. § 2143.03. As discussed above and incorporated by reference herein in full, Long fails to teach or suggest the claim limitations “a support with an inner surface which defines a channel wherein a cryogenic fluid flows” and “at least a superconducting conductor positioned externally to said support.” Moreover Long teaches having the conductor in direct contact with the cryogenic fluid; not separated by a support. (Long, col. 2, ll. 12-14).

Applicant submits that nothing in the secondary references, whether alone or in combination, corrects this deficiency of Long.

Accordingly, Applicant requests that the Examiner withdraw the rejection of Claims 6-9, 13, 17, and 18 under 35 U.S.C. 103(a).

FINNEGAN  
HENDERSON  
FARABOW  
GARRETT &  
DUNNER LLP

1300 I Street, NW  
Washington, DC 20005  
202.408.4000  
Fax 202.408.4400  
www.finnegan.com

#### IV. CONCLUSION

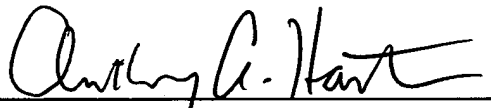
In view of the foregoing amendments and remarks, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account no. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER, L.L.P.

Dated: December 2, 2003

By:   
Anthony A. Hartmann  
Reg. No. 43,662

#608742

FINNEGAN  
HENDERSON  
FARABOW  
GARRETT &  
DUNNER LLP

1300 I Street, NW  
Washington, DC 20005  
202.408.4000  
Fax 202.408.4400  
www.finnegan.com